

May 20, 2019



## Plan for Characterization and Clean-up, if Necessary, of Soil at Rainier Commons Non-Impervious Surface Areas

**Site Address:** Rainier Commons, LLC  
3100 Airport Way S, Seattle, WA

**NVL Project#:** 2012-494

### I. Introduction:

Rainier Commons, in conjunction with NVL Laboratories, has prepared this *Plan for Characterization and Clean-up, if Necessary, of Soil at Rainier Commons Non-Impervious Surface Areas* (the Plan) to identify and address the possibility that paint chips, containing some level of PCBs, may have become detached from painted, exterior building surfaces and were subsequently transferred to on-site, pervious surfaces.

As discussed during a joint meeting with Rainier and EPA personnel on March 5, 2019, the EPA tasked Rainier Commons with the development of a plan to identify and characterize soil in landscaped areas. Upon completion of all paint removal activities, all campus pervious surface areas located directly adjacent to buildings previously abated ("Adjacent Locations") will be tested for PCBs, and if necessary, will then be appropriately cleaned up, and verified for compliance with applicable standards. Further, should any PCBs above the action level be detected during this first round of testing, all remaining pervious surface areas ("Remote Locations") shall also be tested for PCBs, and if necessary, appropriately cleaned up, and verified for compliance.

### II. References:

The following lists the references used in this Plan. References are denoted in this document using the underlined titles.

- Work Plan = Rainier Commons Work Plan dated March 25, 2013 / Revised July 25, 2013
- 40 CFR 761.61 = PCB Remediation Waste \*
- 40 CFR 761.265 = Sampling bulk Remediation Waste and Porous Surfaces
- 40 CFR 761.283 = Determination of the Number of Samples to Collect and Sample Collection Locations
- 40 CFR 761.286 = Sample Size and Procedure for Collecting a Sample

\* Washington State soil clean up levels for unrestricted land use PCB mixtures defers to 40 C.F.R. 761.61 total value of all PCBs 1 mg/kg (WAC 173-340-900 Table 740-1)

### III. Site Description:

A review of the legal description in Title Reports and aerial photographs identifies the Rainier Commons campus as a 4.6-acre site located at 3100 Airport Way South, Seattle, WA 98134. The campus is bounded by Airport Way and the Seattle Light Rail maintenance facility to the west; new office, retail, and storage buildings to the south; Washington State Department of Transportation (WSDoT) lands to the east (I-5 corridor); and a Sound Transit bus storage facility to the north.

The campus is largely covered with existing buildings and impervious or paved surfaces. These improvements include 24 buildings of various ages, along with impervious surfaces (asphalt/concrete) for access, parking, and transit. Pervious surfaces on the campus consist of two main categories. Adjacent Locations include seven small planting areas and one gravel driveway. Total pervious surfaces for these areas measure approximately 3,640 square feet. Remote Locations consist of one area containing mature trees, one grass planting area, and one area along the sidewalk containing landscape shrubs. The Remote Locations total approximately 4,204 square feet. These pervious surface areas, comprising the combined total of 7,844 square feet are the subject of this Plan. See Exhibit A – Campus Site Plan and Exhibit B – Close Up of Soils Map.

### IV. Method:

A Certified Industrial Hygienist (CIH) will oversee all sample collection, analysis, data interpretation and reporting involved with this Sampling Plan.

Samples of soil in non-impervious surface areas will be selected and collected following criteria based on:

- 40 CFR 761.265
- 40 CFR 761.283
- 40 CFR 761.286

### V. Selection of Soil Sample Locations:

#### A: Inventory of Non-impervious Surface Areas at Rainier Commons:

For purposes of the Plan, each separate pervious area has been assigned a unique identifier, as follows:

1: Adjacent Areas:

- **North (N):** Planting bed containing small to medium shrubs and small trees, located north of Building 24. 384 square feet.
- **North-East (NE):** Planting bed containing small shrubs and perennial flowers located east of Building 24 and north of Building 1. 230 square feet.
- **South-East (SE):** An area consisting of grasses and weeds located east of Building 2, bounded to the north by Building 1, and to the south by building 3. 1,152 square feet.
- **South (S):** Planting bed consisting of small shrubs located on the west side of Building 3. 466 square feet.

- **South-Central (SC):** Planting bed consisting of small shrubs and trees located on the west side of Building 2. 178 square feet.
- **North-West (NW):** Planting bed consisting of medium to tall shrubs located on the west side of Buildings 1 and 24. 348 square feet.
- **West-Central (WC):** Gravel driveway connecting access road to the north side of Building 13. 390 square feet.
- **South-West (SW):** Mostly unplanted landscape area with some medium shrubs located at the southwest end of Building 13. 492 square feet.

## 2: Remote Areas:

- **Remote Trees (RT):** A line of mature deciduous trees planted along the northwest quadrant, near the stand-alone coffee shop.
- **Remote Grass (RG):** Landscape grass and small shrubs located to the west of the stand-alone coffee shop.
- **Remote Shrubs (RS):** Three, four-foot-wide planting strips running north-south along the campus' border with Airport Way South.

See Exhibit C – Sampling Area Identification Assignment for individual sampling areas.

### **B: Establishing Characterization Sampling Grid:**

Having identified all pervious surfaces subject to sampling characterization for PCBs, both combined sampling areas Adjacent and Remote were individually overlaid with a 3-meter (10 foot) square grid, as prescribed in 40 CFR 761.265. The grids are located along a north-south axis and centered on each combined sampling area. An east-west gridline was also established at the mid-point of, and perpendicular to the north-south line; following guidance provided by 40 CFR 761.283 (b). See Exhibit D – Site Plan with Grid Overlay.

Each north-south gridline was assigned a letter identifier, with the most easterly line designated “A”, and each subsequent line progressing along the alphabet (B, C, D, etc.) through the letter “M”. Each east-west line was assigned a numeric identifier, with the northern-most line designated “1” and each subsequent line assigned the next whole number (2, 3, 4, etc.).

Discrete sampling points are identified by an alpha-numeric Identifier at the intersection of grid lines falling within each individual pervious area (B2, C1, C2, D2, etc.). If a minimum of three individual samples in a given pervious area are not identified using the grid system (as is the case for pervious area designated “NW”) additional points will be randomly assigned within the pervious area, totaling a minimum of three characterization samples. See Exhibit E – Sampling Points.

Table 1 lists all sampling points, by designation number, for the Adjacent Areas pervious surfaces.

Table 2 lists all sampling points, by designation number, for the Remote Areas pervious surfaces.

## **VI. Soil Sample Collection Procedure:**

At each selected sample location assigned a unique alpha-numeric identifier, soil will be collected utilizing a clean soil core sampler (CMTP Soil Sampler, 36" long, or equivalent) with a minimum diameter of 3/4" (2 cm) and a maximum diameter of 1 1/8" (3 cm) to obtain a sample including material from the surface to a maximum depth of three inches (7.5 cm), as required for compliance with 40 CFR 761.286.

Once obtained, the sample will be transferred to an NVL Laboratory provided, individual sample collection bag for transfer to the testing laboratory.

To assess the potential for PCB contamination at a deeper surface level, a second and separate coring sample will be collected at the same location as the first coring sample, from the point where the first coring sample ended (3 inches) to a depth of six inches.

Each sample shall bear a unique sample identification following the established protocol indicating both samples were obtained from the same alpha-numerically identified location, but at two different depths Surface to 3-inch depth and 3-inch depth to 6-inch depth.

Both samples will not be co-mingled and shall be separately analyzed for PCBs.

If a sample identifier locates the characterization sample directly upon unyielding vegetation (e.g. bush trunk, tree root, etc.) the sample location will be relocated to the nearest point where a sample can be successfully obtained.

Clean, unused nitrile gloves will be worn for every sample. Sampling equipment (soil coring sampler) shall be cleaned in a four-stage process prior to collecting each and every sample. Equipment will first be washed in a container of warm, soapy water, followed by the second step of a clear water rinse. Third, the equipment will then be towel dried using a clean previously unused paper or cloth towel and then wiped with clean gauze soaked in hexane. After these four steps the equipment will be allowed to air dry prior to use.

Samples will be transported to the laboratory for analysis utilizing a Chain of Custody protocol.

## **VII. Laboratory Analysis of Field Samples:**

Samples will be submitted to Washington Department of Ecology accredited laboratories to be analyzed for PCB Aroclor content via EPA Method 8082.

NVL Laboratories will be the primary laboratory used for the analysis. NVL meets the requirements of this Condition.

Laboratory turnaround time will be between 1 to 5 days depending on the need of the project.

### VIII. Quality Assurance/Quality Control (QA/QC):

QA/QC details are necessary to ensure that the resulting data are of acceptable quality, including sensitivity, for comparison to EPA decision criteria.

#### Field QA/QC Procedures:

- Field Duplicates:

To measure QA/QC for reproducibility and representativeness of results, a minimum of 10% of all of the samples collected during a sampling event will be “field duplicates”, which are separate samples collected as close as possible to the same point in space and time. Further clarified, this is a minimum of 10% of the samples collected at each depth, in other words, any sampling set will have equivalent number of field duplicates collected for the two sampling depths (surface to 3-inch depth and 3-inch depth to 6-inch depth).

Duplicate samples are to be collected in the same manner as the other samples, including being stored in separate containers and analyzed independently.

The method of selection of the location to collect duplicate samples will be by using a random number generator. For example, if three locations are tested, a random number method will determine which location to collect the duplicate surface to 3-inch depth sample and the random number method will be used again to determine the duplicate 3-inch depth to 6-inch depth.

Laboratory analysis results must be within 75 to 125 percent to be acceptable.

- Split Samples:

To measure QA/QC for accuracy and reproducibility of results, “split samples” will be submitted to another laboratory that meets the qualifications identified in this document. A minimum of 5% of samples collected in the field will be collected similar to the method described for field duplicates. Further clarified, this is a minimum of 5% of the samples collected at each depth, in other words, any sampling set will have equivalent number of split samples collected for the two sampling depths (surface to 3-inch depth and 3-inch depth to 6-inch depth).

Split samples are collected in the same manner as the other samples with the exception of obtaining twice as much of the matrix being tested and placing it in a single container. The container is then closed and shaken to allow the material to homogenize. Half of the material is then poured into a separate container and the containers are appropriately marked as split samples.

Laboratory analysis results must be within 75 to 125 percent to be acceptable.

#### NVL Laboratories QA/QC Program:

NVL Laboratories standard QA/QC procedures will also be in place. The QA/QC program in place is part of NVL Laboratories’ existing multiple professional laboratory accreditations, which

include recognition by The Washington State Department of Ecology (Ecology) – Accreditation ID C797 - for several listed chemicals, including PCB (Aroclor) analysis. NVL’s practices and procedures in place to maintain Ecology Accreditation include:

- Periodic Laboratory Inspections by Ecology to monitor and accept NVL’s laboratory facilities, laboratory procedures/practices and testing conditions.
- Routine involvement with the Proficiency Testing Program where samples are sent to NVL’s laboratory and results are reviewed by Ecology to test the accuracy of analysis.

NVL Laboratories’ QA/QC program includes the addition of surrogates, laboratory control sample (LCS) and LCS duplicate, matrix spike (MS) and MS duplicate and continuous calibration check (CCV) sample for all PCB analysis.

NVL Laboratories’ professional laboratory accreditations and reference to QA/QC documentation can be found at: <http://www.nvllabs.com/qualifications.htm>

**IX. Interpretation Criteria of Laboratory Results and Required Actions:**

Based upon laboratory results received, the following interpretation criteria and required actions will be applied to each separate pervious surface area (e.g. N, NE, SW, etc.) sampled:

LABORATORY RESULTS		REQUIRED ACTIONS	VERIFICATION TESTING REQUIRED
Surface Samples	Equal to or less than 1 ppm	PCBs below regulated limit for unrestricted high occupancy – No further action	None
Subsurface Samples	Equal to or less than 1 ppm		
Surface Samples	Greater than 1 ppm	PCBs above regulated limit for unrestricted high occupancy at surface – Excavate to a depth of 6 inches	40 CFR 761.283(b)(ii)
Subsurface Samples	Less than 1 ppm		
Surface Samples	Any level	Continue characterization sampling at 3-inch depth intervals – Excavate to clean depth (equal to or less than 1 ppm)	40 CFR 761.283(b)(ii)
Subsurface Samples	Greater than 1 ppm		

**X. Clean-up Procedures (When and Where Required):**

For pervious surface areas identified with PCB levels exceeding 1 ppm, if any, the existing soil shall be excavated to a depth of 6 inches below current grade. A combination of hand and power tools may be utilized to obtain the required excavation depth. All clean-up work to be performed by HAZWOPER certified personnel. Care must be exercised to ensure excavation actions do not re-contaminate newly excavated areas by comingling clean surfaces with excavated soils. Soils in a particularly dry condition may be wetted using misting or sprinkling equipment prior to excavation to control dust during excavation. Begin excavation work from the point on the pervious area that is furthest away from a staging area outside the suspect area. Work towards the staging area, without moving across any newly excavated areas.

Clean, unused polyethylene tarping may be incrementally applied to newly excavated areas to prevent contamination during clean-up activities.

Excavated materials will be staged and protected from the weather, pending further characteristics profiling for proper disposal. Staging areas will be constructed near each pervious area to be excavated and over an impervious surface. Staging area construction shall consist of a straw waddle boundary completely surrounding the staging area. A single ply of 6-mil polyethylene sheeting shall form the floor. A minimum clearance area of six inches shall be maintained between the soils being disposed and the edge of the sheeting and the straw waddle boundary. The excavated material will be covered with a single layer of 4-mil polyethylene, anchored as necessary to protect from the elements.

#### **XI. Waste Characterization for Disposal:**

From the staging area for each separate pervious surface area subject to excavation, obtain a single sample for waste characterization, as follows:

Using a core sampler, collect a sample for the entire depth of the excavated material, at the center of the staged area (reference 40 CFR 761.265(b)(1)). Sample size to be a minimum of three cubic inches (50 cm<sup>3</sup>) for laboratory testing.

Based on results of lab testing dispose of excavated material through the appropriate disposal path utilizing a qualified waste disposal vendor, where needed, and completing and preserving appropriate waste manifests.

#### **XII. Post-Cleanup Verification Testing:**

After completion of any required excavation; individual, cleaned pervious surface areas (N, NW, SW, etc.) will be re-tested to demonstrate cleanup meets regulatory levels identified in 40 CFR 761.61(a)(4)(i)(A) – Less than or equal to 1 ppm of PCBs.

Any required post-cleanup verification testing will be performed starting with the gridlines first utilized for characterization testing. For verification sampling, the grid axis will be shifted approximately 3 feet along both the north and east axis. The original ten-foot gridline will then be further divided into a series of five-foot grids. See Exhibit F – Verification Sampling Grid. For any area where verification testing is required, each gridline intersection within a discrete pervious surface area will be assigned a numeric designation. Based on the total number of gridline intersections located within a given pervious surface area, a random number generator will be utilized to identify three sampling locations per designated area. Surface sampling will be performed following the procedures set forth in this Plan at Section VI. Soil Sample Collection Procedures). See Exhibit G – Example of Verification Sampling Grid Identification

#### **XIII. Records Retention:**

Upon completion of all cleanup activities, all sampling records (characterization, waste profiling, and verification) will be kept on file for five years. Files will be made available to the EPA and other regulatory agencies, upon request.

**TABLE 1 – ADJACENT LOCATIONS SAMPLE LOG**

SAMPLE AREA IDENTIFICATION	SURFACE TYPE	SAMPLE INTERSECTION	SAMPLE DEPTH	SAMPLE IDENTIFICATION	LAB RESULTS		
N	SOIL	B2	SURFACE	XXXXXX-B2-S			
			6 INCHES	XXXXXX-B2-6			
		C1	SURFACE	XXXXXX-C1-S			
			6 INCHES	XXXXXX-C1-6			
		C2	SURFACE-DUPLICATE	XXXXXX-C2-S-DUP1			
			SURFACE-DUPLICATE	XXXXXX-C2-S-DUP2			
			6 INCHES	XXXXXX-C2-6			
		D2	SURFACE-DUPLICATE	XXXXXX-D2-S-DUP1			
			SURFACE-DUPLICATE	XXXXXX-D2-S-DUP2			
			6 INCHES	XXXXXX-D2-6			
		NE	SOIL	B7	SURFACE	XXXXXX-B7-S	
					6 INCHES-DUPLICATE	XXXXXX-B7-6-DUP1	
6 INCHES-DUPLICATE	XXXXXX-B7-6-DUP2						
6 INCHES-SPLIT	XXXXXX-B7-6-SPLT1						
6 INCHES-SPLIT	XXXXXX-B7-6-SPLT2						
B8	SURFACE			XXXXXX-B8-S			
	6 INCHES			XXXXXX-B8-6			
B9	SURFACE-DUPLICATE			XXXXXX-B9-S-DUP1			
	SURFACE-DUPLICATE			XXXXXX-B9-S-DUP2			

NE	SOIL	B9	6 INCHES	XXXXXX-B9-6	
SE	GRASS/WEEDS	B13	SURFACE	XXXXXX-B13-S	
			6 INCHES	XXXXXX-B13-6	
		B14	SURFACE	XXXXXX-B14-S	
			6 INCHES	XXXXXX-B14-6	
		B15	SURFACE	XXXXXX-B15-S	
			6 INCHES	XXXXXX-B15-6	
		B16	SURFACE	XXXXXX-B16-S	
			6 INCHES-SPLIT	XXXXXX-B16-6-SPLT1	
			6 INCHES-SPLIT	XXXXXX-B16-6-SPLT2	
		B17	SURFACE	XXXXXX-B17-S	
			6 INCHES	XXXXXX-B17-6	
		B18	SURFACE	XXXXXX-B18-S	
			6 INCHES	XXXXXX-B18-6	
		B19	SURFACE	XXXXXX-B19-S	
			6 INCHES-SPLIT	XXXXXX-B19-6-SPLT1	
			6 INCHES-SPLIT	XXXXXX-B19-6-SPLT2	
		B20	SURFACE	XXXXXX-B20-S	
			6 INCHES-DUPLICATE	XXXXXX-B20-6-DUP1	
			6 INCHES-DUPLICATE	XXXXXX-B20-6-DUP2	
		B21	SURFACE	XXXXXX-B21-S	
6 INCHES	XXXXXX-B21-6				
NW	SOIL	F4	SURFACE	XXXXXX-F4-S	
			6 INCHES	XXXXXX-F4-6	

NW	SOIL	E7:F7	SURFACE	XXXXXX-E7-S			
			6 INCHES-DUPLICATE	XXXXXX-E7-6-DUP1			
			6 INCHES-DUPLICATE	XXXXXX-E7-6-DUP2			
		E10:F10	SURFACE	XXXXXX-E10-S			
			6 INCHES	XXXXXX-E10-6			
SC	SOIL	E17	SURFACE	XXXXXX-E17-S			
			6 INCHES-DUPLICATE	XXXXXX-E17-6-DUP1			
			6 INCHES-DUPLICATE	XXXXXX-E17-6-DUP2			
		E18	SURFACE-SPLIT	XXXXXX-E18-S-SPLT1			
			SURFACE-SPLIT	XXXXXX-E18-S-SPLT2			
			6 INCHES	XXXXXX-E18-6			
		E19	SURFACE	XXXXXX-E19-S			
			6 INCHES	XXXXXX-E19-6			
		E20	SURFACE	XXXXXX-E20-S			
			6 INCHES	XXXXXX-E20-6			
		S	SOIL	E22	SURFACE	XXXXXX-E22-S	
					6 INCHES	XXXXXX-E22-6	
E23	SURFACE			XXXXXX-E23-S			
	6 INCHES			XXXXXX-E23-6			
E24	SURFACE-DUPLICATE			XXXXXX-E24-S-DUP1			
	SURFACE-DUPLICATE			XXXXXX-E24-S-DUP2			
	6 INCHES			XXXXXX-E24-6			
E25	SURFACE			XXXXXX-E25-S			

S	SOIL	E26	6 INCHES	XXXXXX-E25-6	
			SURFACE	XXXXXX-E26-S	
		E27	6 INCHES	XXXXXX-E26-6	
			SURFACE	XXXXXX-E27-S	
		E28	6 INCHES	XXXXXX-E27-6	
			SURFACE	XXXXXX-E28-S	
			6 INCHES-DUPLICATE	XXXXXX-E28-6-DUP1	
		E29	6 INCHES-DUPLICATE	XXXXXX-E28-6-DUP2	
			SURFACE	XXXXXX-E29-S	
		E29	6 INCHES	XXXXXX-E29-6	
WC	H18		SURFACE	XXXXXX-H18-S	
		6 INCHES	XXXXXX-H18-6		
	I18	SURFACE-SPLIT	XXXXXX-I18-S-SPLT1		
		SURFACE-SPLIT	XXXXXX-I18-S-SPLT2		
		6 INCHES	XXXXXX-I18-6		
	I19	SURFACE	XXXXXX-I19-S		
6 INCHES		XXXXXX-I19-6			
SW	SOIL	K20	SURFACE	XXXXXX-K20-S	
			6 INCHES	XXXXXX-K20-6	
		K21	SURFACE	XXXXXX-K21-S	
			6 INCHES	XXXXXX-K21-6	
		K22	SURFACE-SPLIT	XXXXXX-K22-S-SPLT1	
			SURFACE-SPLIT	XXXXXX-K22-S-SPLT2	
			6 INCHES	XXXXXX-K22-6	

SW	SOIL	L28	SURFACE-DUPLICATE	XXXXXX-L28-S-DUP1	
			SURFACE-DUPLICATE	XXXXXX-L28-S-DUP2	
			6 INCHES	XXXXXX-L28-6	
		L29	SURFACE	XXXXXX-L29-S	
			6 INCHES	XXXXXX-L29-6	

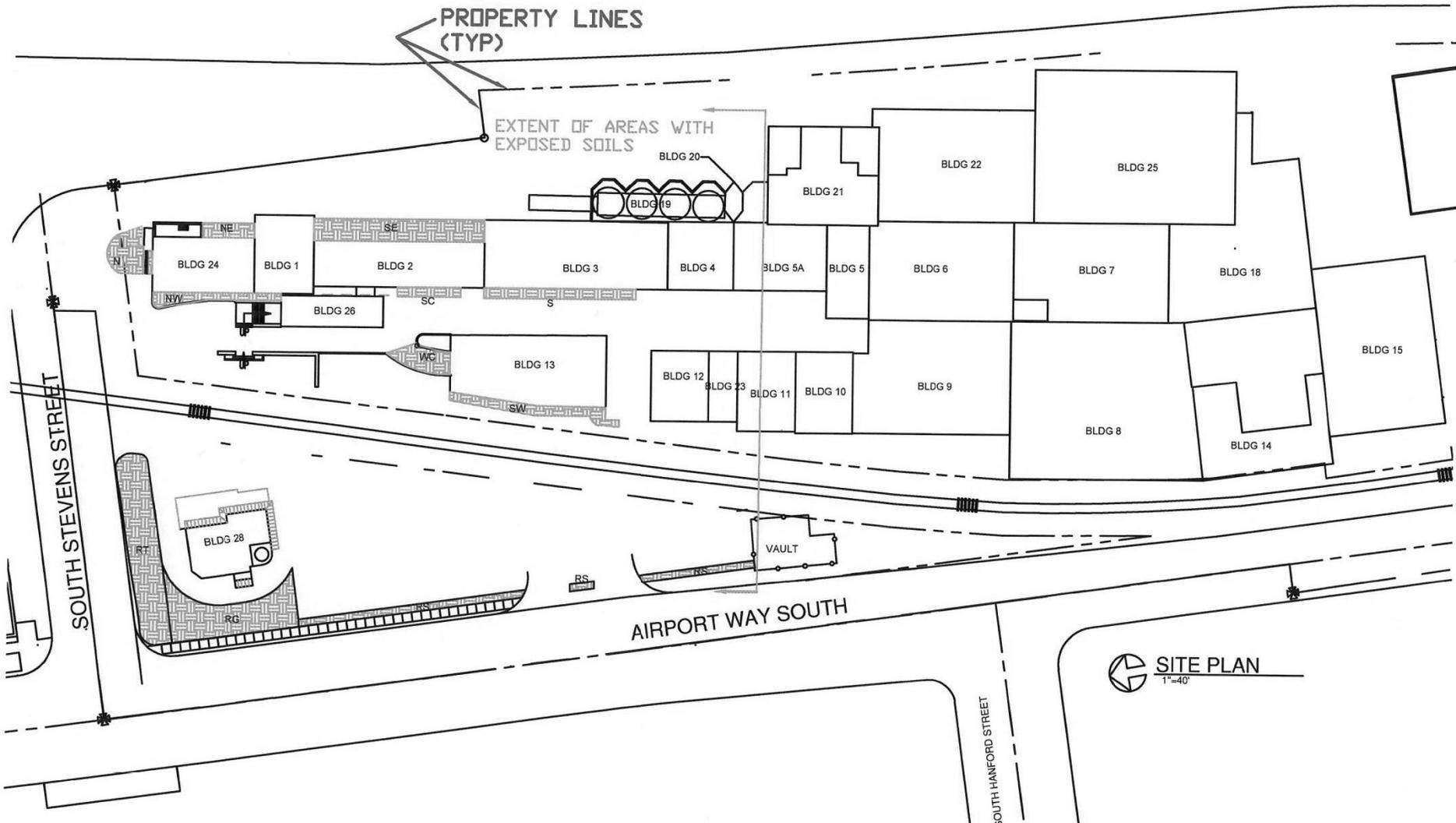
**TABLE 2 – REMOTE LOCATIONS SAMPLE LOG**

SAMPLE AREA IDENTIFICATION	SURFACE TYPE	SAMPLE INTERSECTION	SAMPLE DEPTH	SAMPLE IDENTIFICATION	LAB RESULTS
RT	TREES	O2	SURFACE	XXXXXX-O2-S	
			6 INCHES	XXXXXX-O2-6	
		P1	SURFACE	XXXXXX-P1-S	
			6 INCHES	XXXXXX-P1-6	
		P2	SURFACE	XXXXXX-P2-S	
			6 INCHES	XXXXXX-P2-6	
		Q2	SURFACE	XXXXXX-Q2-S	
			6 INCHES	XXXXXX-Q2-6	
		R2	SURFACE-SPLIT	XXXXXX-R2-S-SPLT1	
			SURFACE-SPLIT	XXXXXX-R2-S-SPLT2	
			6 INCHES	XXXXXX-R2-6	
		R3	SURFACE	XXXXXX-R3-S	
			6 INCHES	XXXXXX-R3-6	
		S2	SURFACE-SPLIT	XXXXXX-S2-S-SPLT1	
			SURFACE-SPLIT	XXXXXX-S2-S-SPLT2	
			6 INCHES	XXXXXX-S2-6	
		S3	SURFACE	XXXXXX-S3-S	
			6 INCHES	XXXXXX-S3-6	
		T2	SURFACE	XXXXXX-T2-S	
			6 INCHES	XXXXXX-T2-6	
		T3	SURFACE	XXXXXX-T3-S	
			6 INCHES	XXXXXX-T3-6	

RT	TREES	U2	SURFACE	XXXXXX-U2-S			
			6 INCHES	XXXXXX-U2-6			
		U3	SURFACE-DUPLICATE	XXXXXX-U3-S-DUP1			
			SURFACE-DUPLICATE	XXXXXX-U3-S-DUP2			
			6 INCHES	XXXXXX-U3-6			
		V2	SURFACE	XXXXXX-V2-S			
			6 INCHES	XXXXXX-V2-6			
		W2	SURFACE	XXXXXX-W2-S			
			6 INCHES-DUPLICATE	XXXXXX-W2-6-DUP1			
			6 INCHES-DUPLICATE	XXXXXX-W2-6-DUP2			
		W3	SURFACE	XXXXXX-W3-S			
			6 INCHES	XXXXXX-W3-6			
		X3	SURFACE	XXXXXX-X3-S			
			6 INCHES	XXXXXX-X3-6			
		Y3	SURFACE	XXXXXX-Y3-S			
			6 INCHES	XXXXXX-Y3-6			
		RG	GRASS	V3	SURFACE	XXXXXX-V3-S	
					6 INCHES	XXXXXX-V3-6	
V10	SURFACE			XXXXXX-V10-S			
	6 INCHES			XXXXXX-V10-6			
W4	SURFACE-DUPLICATE			XXXXXX-W4-S-DUP1			
	SURFACE-DUPLICATE			XXXXXX-W4-S-DUP2			
	6 INCHES-DUPLICATE			XXXXXX-W4-6-DUP1			

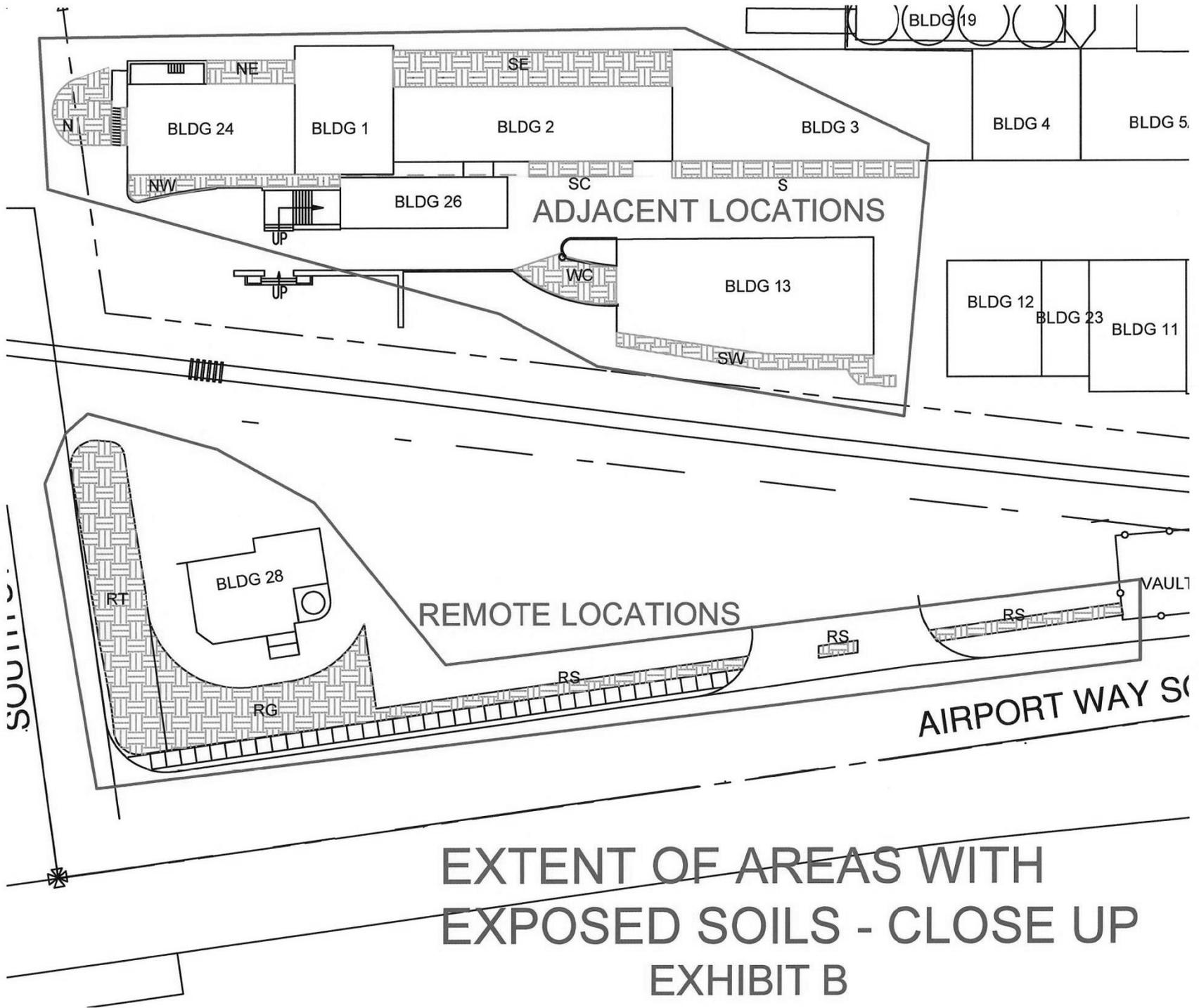
RG	GRASS	W4	6 INCHES-DUPLICATE	XXXXXX-W4-6-DUP2	
		W5	SURFACE	XXXXXX-W5-S	
			6 INCHES	XXXXXX-W5-6	
		W6	SURFACE	XXXXXX-W6-S	
			6 INCHES	XXXXXX-W6-6	
		W7	SURFACE-DUPLICATE	XXXXXX-W7-S-DUP1	
			SURFACE-DUPLICATE	XXXXXX-W7-S-DUP2	
			6 INCHES	XXXXXX-W7-6	
		W8	SURFACE	XXXXXX-VW8-S	
			6 INCHES	XXXXXX-W8-6	
		W9	SURFACE	XXXXXX-W9-S	
			6 INCHES	XXXXXX-W9-6	
		W10	SURFACE-DUPLICATE	XXXXXX-W10-S-DUP1	
			SURFACE-DUPLICATE	XXXXXX-W10-S-DUP2	
			6 INCHES-SPLIT	XXXXXX-W10-6-SPLT1	
			6 INCHES-SPLIT	XXXXXX-W10-6-SPLT2	
		X4	SURFACE	XXXXXX-X4-S	
			6 INCHES-DUPLICATE	XXXXXX-X4-6-DUP1	
			6 INCHES-DUPLICATE	XXXXXX-X4-6-DUP2	
			6 INCHES-SPLIT	XXXXXX-X4-6-SPLT1	
6 INCHES-SPLIT	XXXXXX-X4-6-SPLT2				

RG	GRASS	X5	SURFACE	XXXXXX-X5-S			
			6 INCHES	XXXXXX-X5-6			
		X6	SURFACE	XXXXXX-X6-S			
			6 INCHES	XXXXXX-X6-6			
		X7	SURFACE	XXXXXX-X7-S			
			6 INCHES	XXXXXX-X7-6			
		X8	SURFACE	XXXXXX-X8-S			
			6 INCHES	XXXXXX-X8-6			
		X9	SURFACE	XXXXXX-X9-S			
			6 INCHES	XXXXXX-X9-6			
		X10	SURFACE	XXXXXX-X10-S			
			6 INCHES	XXXXXX-X10-6			
		X11	SURFACE	XXXXXX-X11-S			
			6 INCHES-DUPLICATE	XXXXXX-X11-6-DUP1			
			6 INCHES-DUPLICATE	XXXXXX-X11-6-DUP2			
		RS	SHRUBS	U31	SURFACE	XXXXXX-U31-S	
					6 INCHES	XXXXXX-U31-6	
				U32	SURFACE	XXXXXX-U32-S	
6 INCHES	XXXXXX-U32-6						
W18	SURFACE			XXXXXX-W18-S			
	6 INCHES			XXXXXX-W18-6			



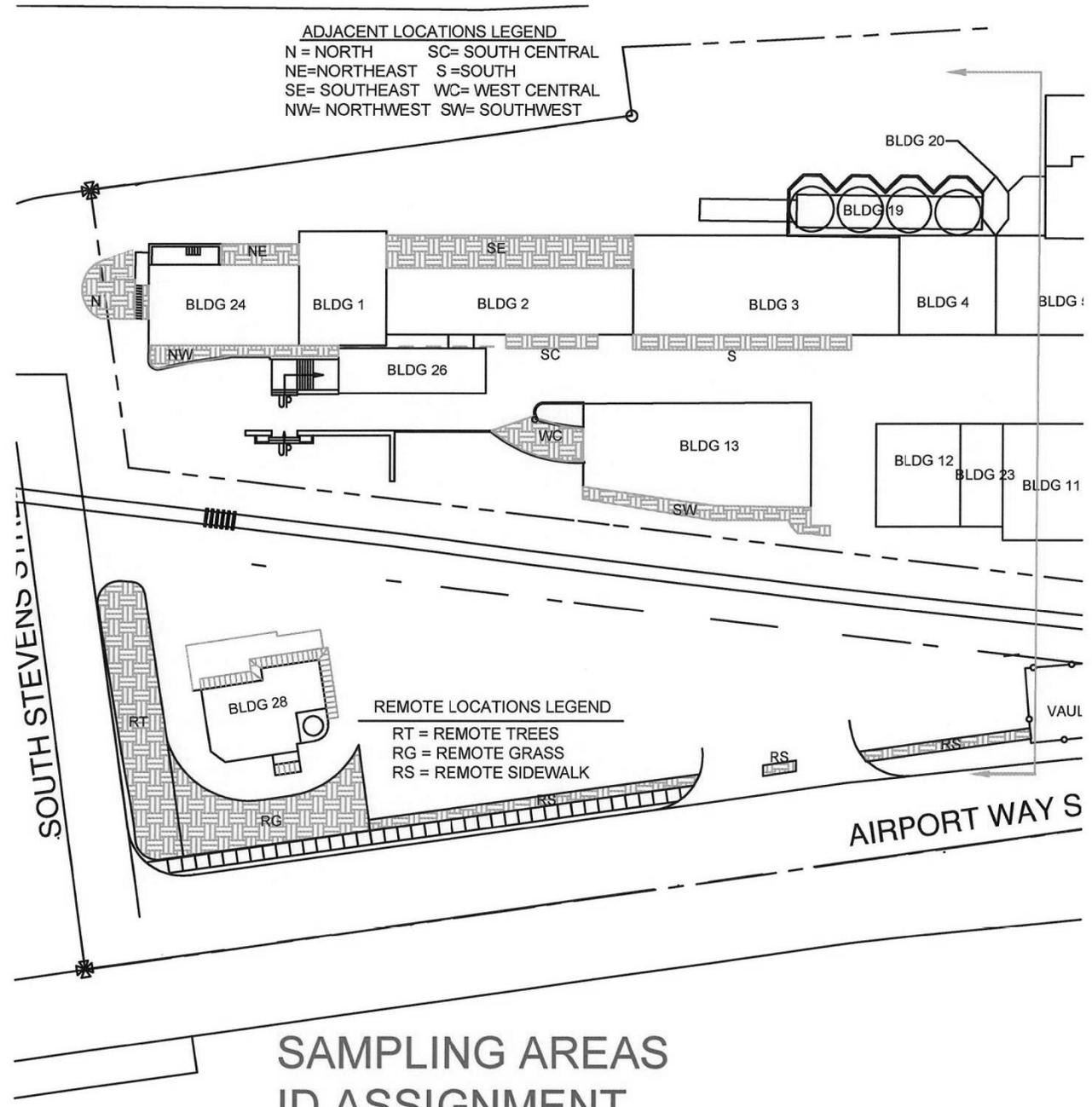
# POST ABATEMENT SOILS TESTING - SITE PLAN EXHIBIT A

RCLLC 0010903



RCLLC 0010904

ADJACENT LOCATIONS LEGEND  
 N = NORTH SC= SOUTH CENTRAL  
 NE=NORTHEAST S=SOUTH  
 SE= SOUTHEAST WC= WEST CENTRAL  
 NW= NORTHWEST SW= SOUTHWEST



SAMPLING AREAS  
 ID ASSIGNMENT  
 EXHIBIT C

RCLLC 0010905

# EXHIBIT D

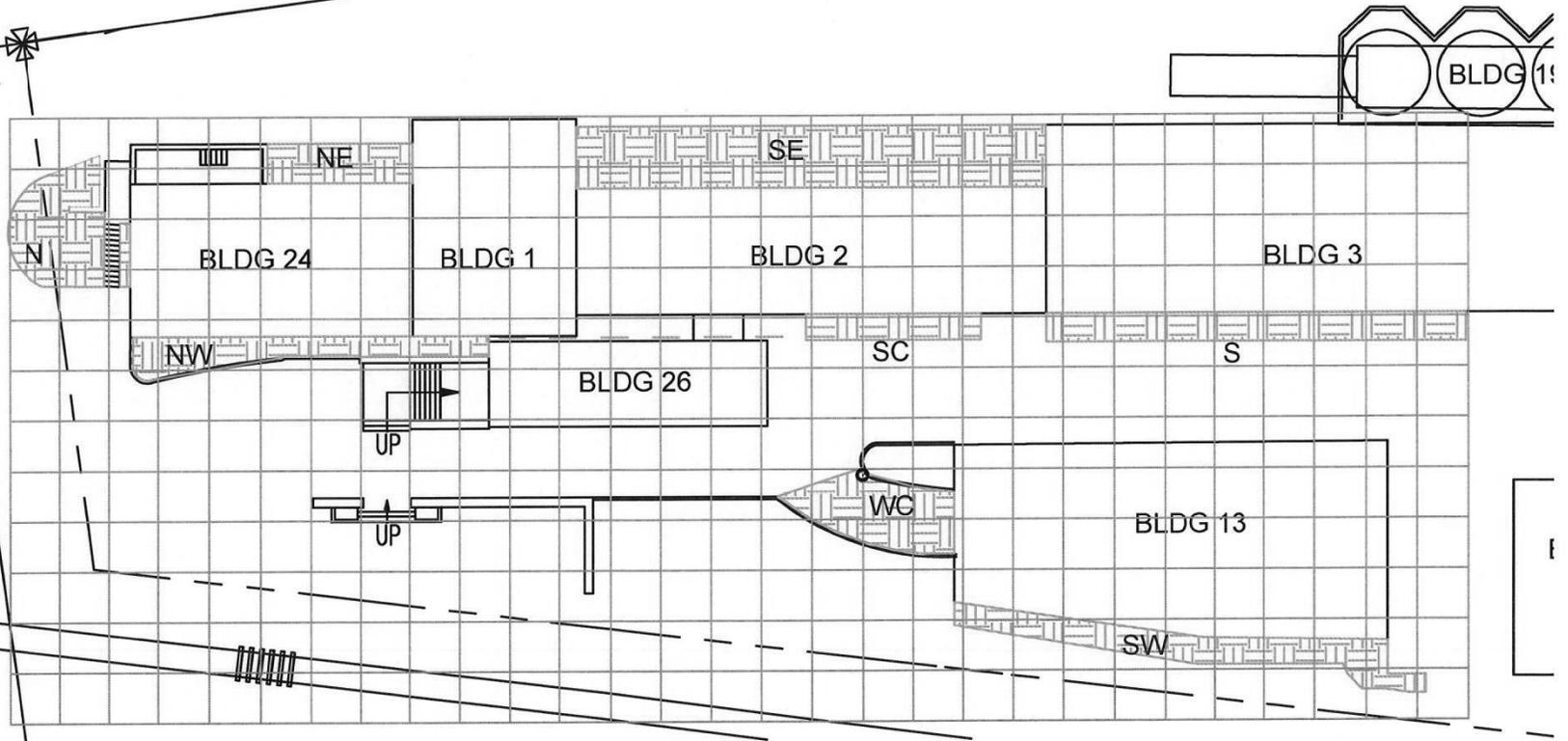
## ADJACENT AREAS LOCATION

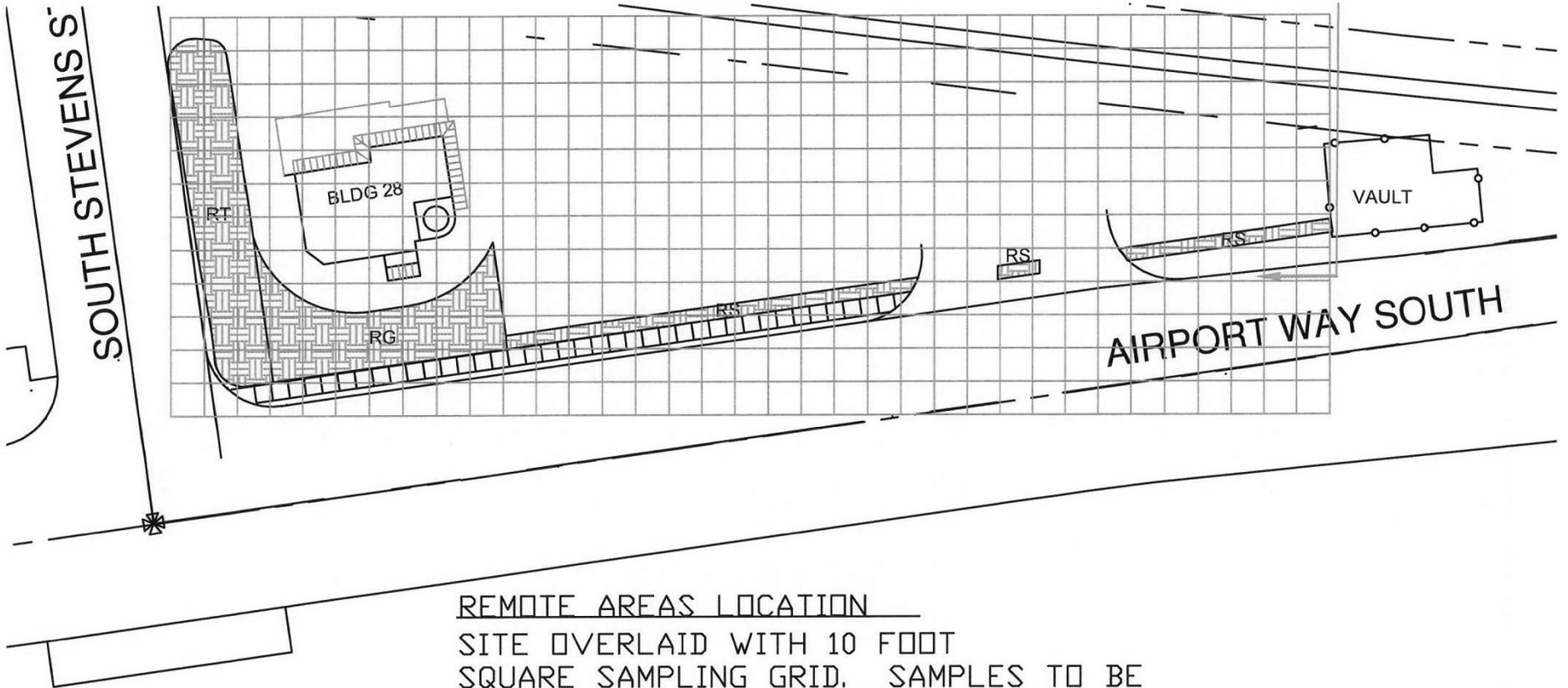
SITE OVERLAID WITH 10 FOOT SQUARE SAMPLING GRID. SAMPLES TO BE OBTAINED AT INTERSECTION OF GRID SQUARES, WHERE EXPOSED SOILS EXIST

BI

RCLLC 0010906

TREET





REMOTE AREAS LOCATION

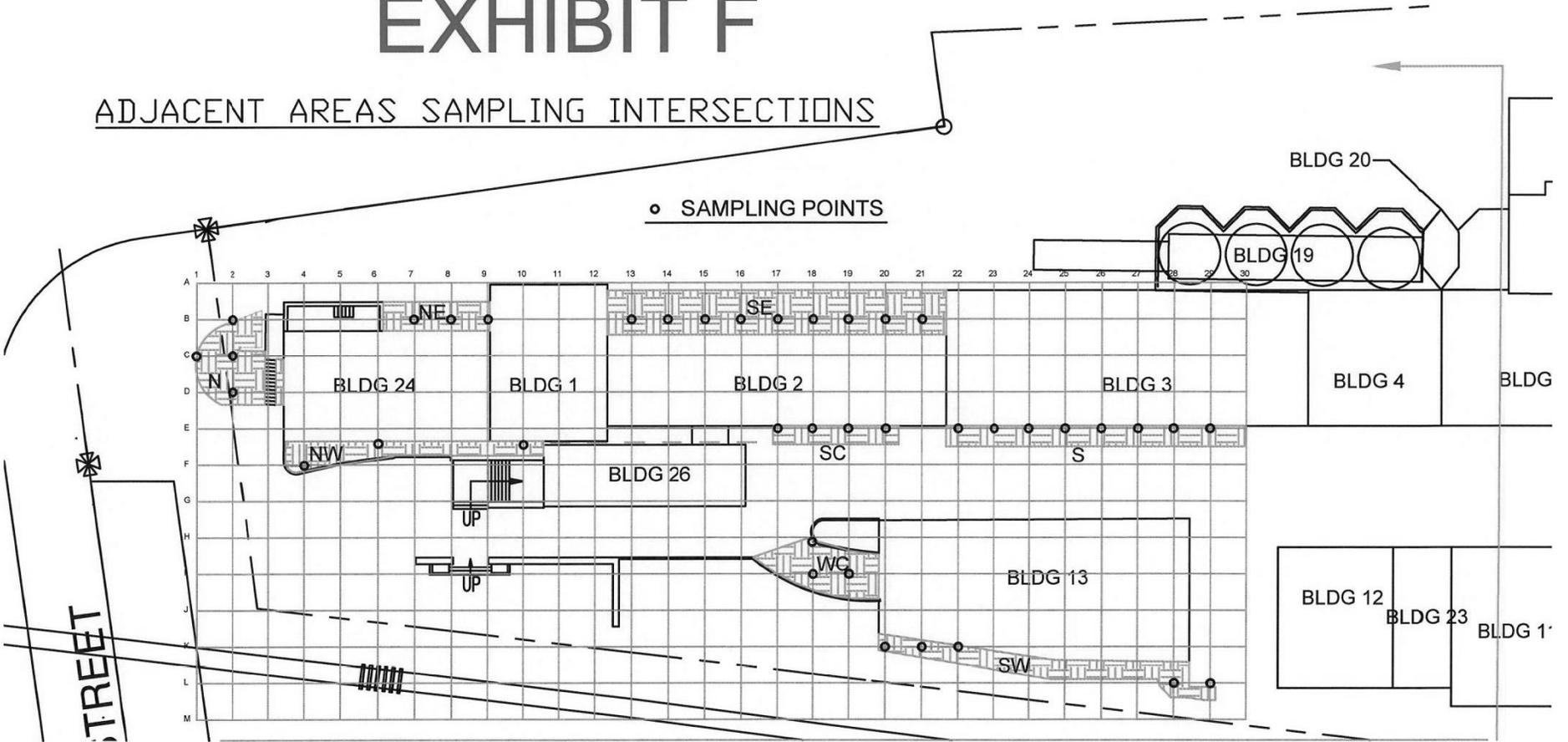
SITE OVERLAID WITH 10 FOOT  
 SQUARE SAMPLING GRID. SAMPLES TO BE  
 OBTAINED AT INTERSECTION OF GRID SQUARES,  
 WHERE EXPOSED SOILS EXIST

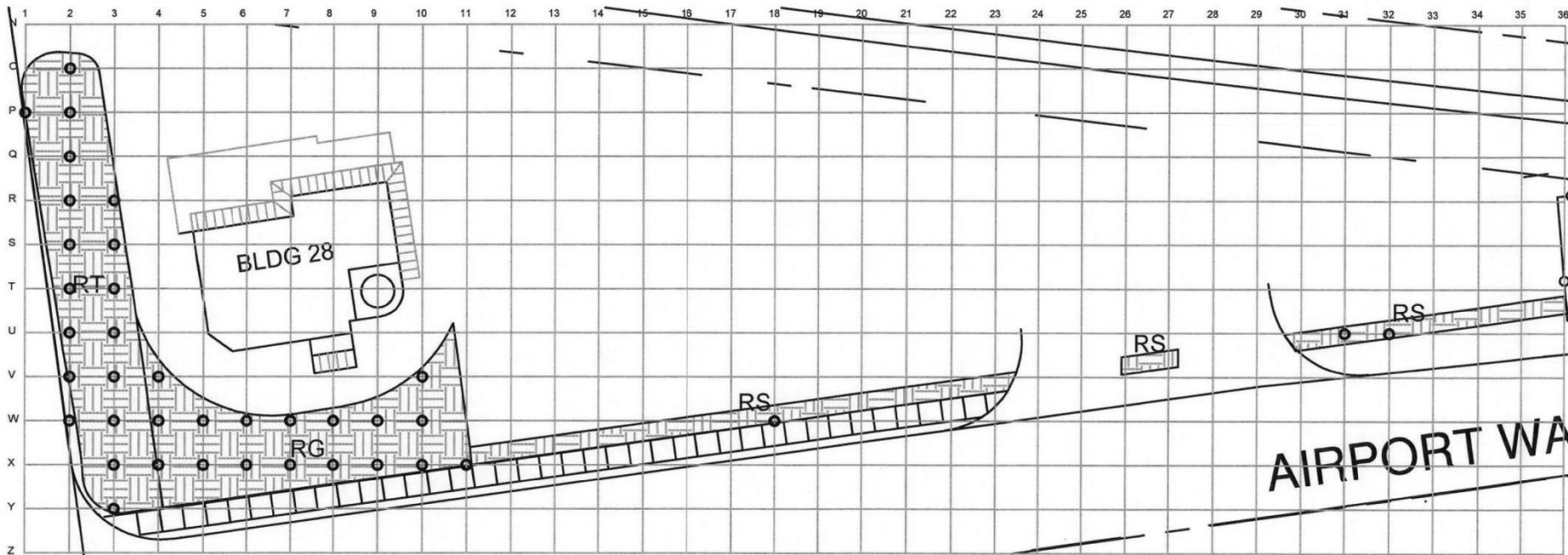
**EXHIBIT E**

# EXHIBIT F

## ADJACENT AREAS SAMPLING INTERSECTIONS

◦ SAMPLING POINTS





REMOTE AREAS SAMPLING INTERSECTIONS

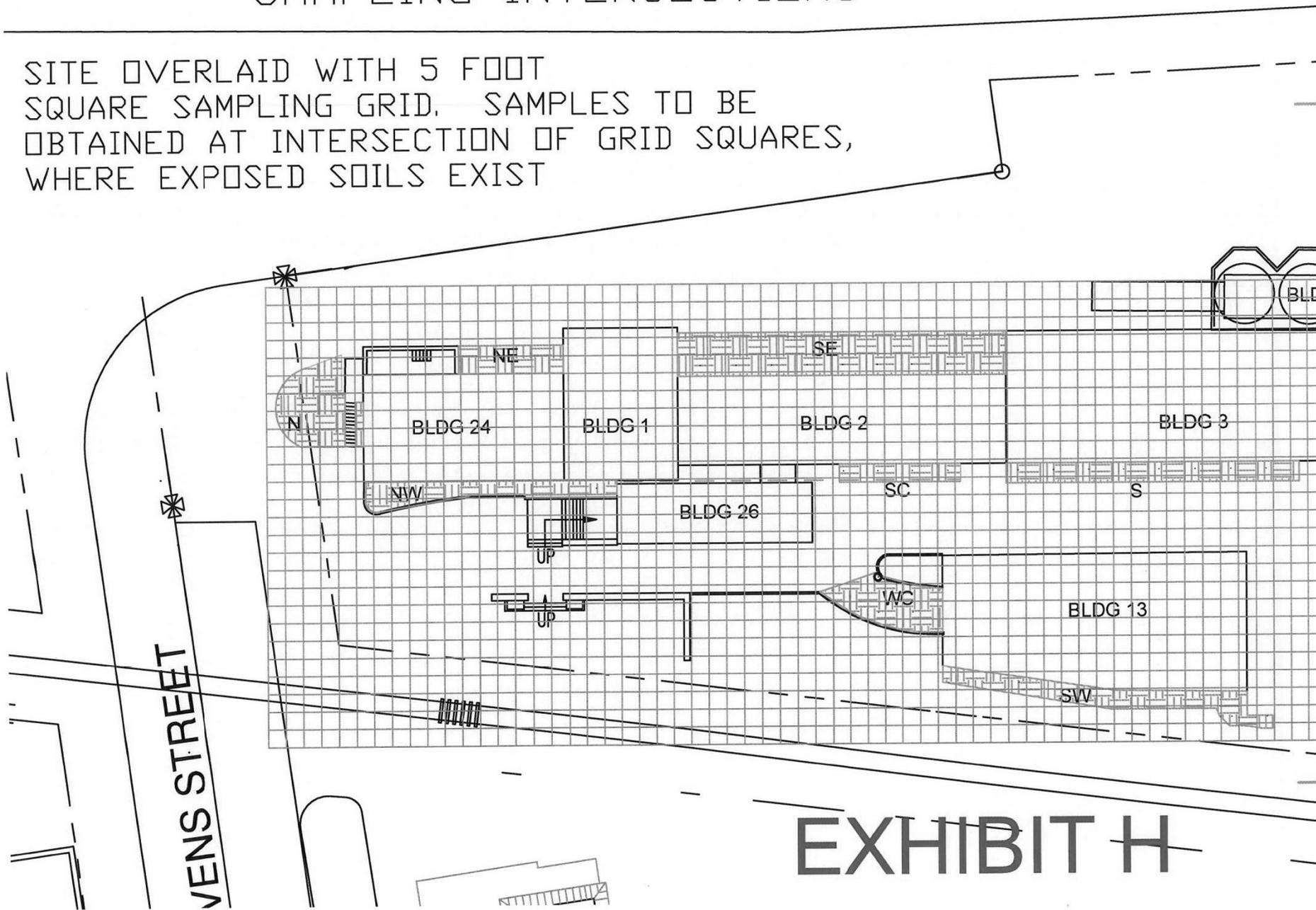
EXHIBIT G

◦ SAMPLING POINTS

RCLLC 0010909

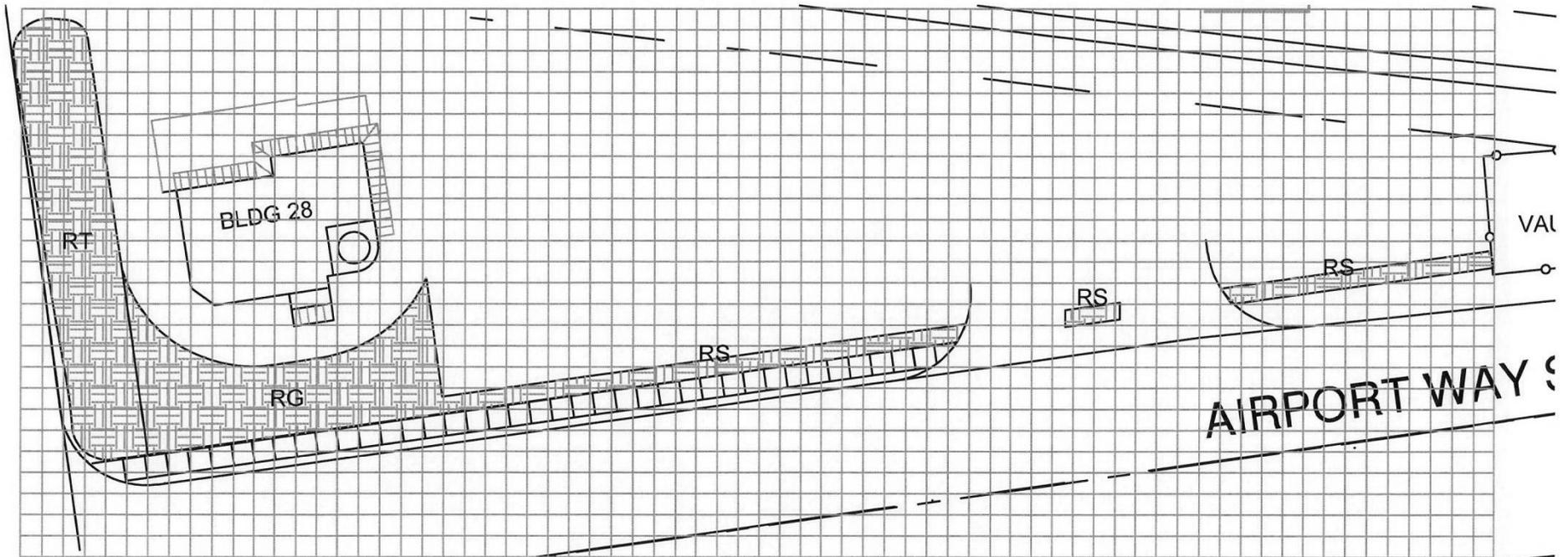
# ADJACENT AREA VERIFICATION SAMPLING INTERSECTIONS

SITE OVERLAID WITH 5 FOOT  
SQUARE SAMPLING GRID. SAMPLES TO BE  
OBTAINED AT INTERSECTION OF GRID SQUARES,  
WHERE EXPOSED SOILS EXIST



RCLLC 0010910

## EXHIBIT H



REMOTE AREA VERIFICATION  
 SAMPLING INTERSECTIONS

**EXHIBIT I**

SITE OVERLAID WITH 5 FOOT  
 SQUARE SAMPLING GRID. SAMPLES TO BE  
 OBTAINED AT INTERSECTION OF GRID SQUARES,  
 WHERE EXPOSED SOILS EXIST

RCLLC 0010911

# EXHIBIT J

EXAMPLE OF ASSIGNING  
NUMERIC SAMPLING POINTS  
FOR RANDOM SELECTION  
OF VERIFICATION SAMPLES

